

### **REMARKS**

In this Amendment, Applicant has cancelled Claims 4, 7, 10 – 15, 18 – 20 and 25 – 35 without prejudice or disclaimer, and amended Claim 3 and added new Claims 36 – 39 to overcome the rejection and specify the embodiments of the present invention. It is respectfully submitted that no new matter has been introduced by the amended claims. All claims are now present for examination and favorable reconsideration is respectfully requested in view of the preceding amendments and the following comments.

#### **REJECTIONS UNDER 35 U.S.C. § 112 SECOND PARAGRAPH:**

Claim 31 has been rejected under 35 U.S.C. 112 second paragraph as allegedly failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant respectfully submits that the rejection has been overcome by the present amendment. More specifically, Claim 31 has been cancelled without prejudice or disclaimer.

Therefore, the rejection under 35 U.S.C. § 112, second paragraph, has been overcome. Accordingly, withdrawal of the rejections under 35 U.S.C. § 112, second paragraph, is respectfully requested.

#### **REJECTIONS UNDER 35 U.S.C. §§ 102-103:**

Claims 30 – 31 and 35 have been rejected under 35 U.S.C. § 102 (b) as allegedly being anticipated by Hoffman (US Pat. No. 5,011,566). Claims 12 – 15, 18 – 19 and 32 – 34 have been rejected under 35 U.S.C. §103(a) as allegedly being obvious over Hoffman.

Applicant traverses the rejection and respectfully submits that the presently claimed invention is not anticipated by or obvious over the cited references. More specifically, the present invention of as defined by Claim 3 is that a tube electroforming method comprising the steps of: forming an electrodeposit material or a surrounding material by electroforming around a thin wire material made of stainless steel including a conductive layer which is a different metal layer from the electrodeposit material or the surrounding material disposed on an outer surface of the thin wire material; and removing the thin wire material so as to maintain the conductive layer on an inner surface of the electrodeposit material or the surrounding material, wherein the conductive layer is formed by electrolytic plating and has a higher electrical conductivity than that of the electrodeposit material or the surrounding material, and the thin wire material is removed by pulling the material from one end or both ends.

Accordingly, the present invention as defined by Claim 3 is to maintain the conductive layer on the inner surface of the electrodeposit material or the surrounding material by pulling the thin wire material made of stainless steel including the conductive layer disposed on the outer surface, wherein the conductive layer is formed by electrolytic plating and has a higher electrical conductivity than that of the electrodeposit material or the surrounding material.

On the other hand, Hoffman does not disclose such steps of the present invention as defined by Claim 3. Therefore, the present invention as defined by Claim 3 is not anticipated by or obvious over Hoffman.

The present invention as defined by Claim 36 is that a tube produced by electroforming through forming an electrodeposit material or a surrounding material by electroforming around the thin wire material including a conductive layer which is a different metal layer from the electrodeposit material or the surrounding material disposed on an outer surface of the thin wire material, pulling the thin wire material from one end or both ends to deform the thin wire material so that a sectional area thereof is reduced, forming a clearance between the thin wire material and the conductive layer to

extract the thin wire material, and removing the thin wire material so as to maintain the conductive layer on an inner surface of the electrodeposit material or the surrounding material, wherein the conductive layer has a higher electrical conductivity than that of the electrodeposit material or the surrounding material, and a hollow portion is formed by removing the thin wire material from the electrodeposit material or the surrounding material, a thickness of the electrodeposit material or the surrounding material is 5  $\mu\text{m}$  or more and 50  $\mu\text{m}$  or less, when an inner shape of the hollow portion has a circular sectional shape.

Accordingly, the present invention as defined by Claim 36 is to maintain the conductive layer on the inner surface of the electrodeposit material or the surrounding material by pulling the thin wire material including the conductive layer disposed on the outer surface, wherein the conductive layer has a higher electrical conductivity than that of the electrodeposit material or the surrounding material, the thickness of the electrodeposit material or the surrounding material is 5  $\mu\text{m}$  or more and 50  $\mu\text{m}$  or less, when the inner shape of the hollow portion has a circular sectional shape.

On the other hand, Hoffman does not disclose such the components of the present invention as defined by Claim 36. Therefore, Claim 36 is not anticipated by or obvious over Hoffman.

Claim 38 defines that a tube produced by electroforming through forming an electrodeposit material or a surrounding material by electroforming around the thin wire material including a conductive layer which is a different metal layer from the electrodeposit material or the surrounding material disposed on an outer surface of the thin wire material, pulling the thin wire material from one end or both ends to deform the thin wire material so that a sectional area thereof is reduced, forming a clearance between the thin wire material and the conductive layer to extract the thin wire material, and removing the thin wire material so as to maintain the conductive layer on an inner surface of the electrodeposit material or the surrounding material, wherein the conductive layer has a higher electrical conductivity than that of the electrodeposit material or the

surrounding material, and a hollow portion is formed by removing the thin wire material from the electrodeposit material or the surrounding material, a thickness of the electrodeposit material or the surrounding material is 5  $\mu\text{m}$  or more and 50  $\mu\text{m}$  or less, when an inner shape of the hollow portion has a polygonal sectional shape.

Accordingly, the present invention as defined by Claim 38 is to maintain the conductive layer on the inner surface of the electrodeposit material or the surrounding material by pulling the thin wire material including the conductive layer disposed on the outer surface, wherein the conductive layer has a higher electrical conductivity than that of the electrodeposit material or the surrounding material, the thickness of the electrodeposit material or the surrounding material is 5  $\mu\text{m}$  or more and 50  $\mu\text{m}$  or less, when the inner shape of the hollow portion has a polygonal sectional shape.

On the other hand, Hoffman does not disclose the components of the present invention of Claim 38. Therefore, Claim 38 is not anticipated by or obvious over Hoffman.

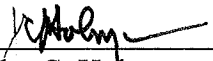
In summary, the present claims are not anticipated by or obvious over Hoffman and the rejection under 35 U.S.C. §§ 102 (b)-103(a) has been overcome. Accordingly, withdrawal of the rejection under 35 U.S.C. § 102 (b)-103(a) is respectfully requested.

Having overcome all outstanding grounds of rejection, the application is now in condition for allowance, and prompt action toward that end is respectfully solicited.

Respectfully submitted,

JACOBSON HOLMAN PLLC

Date: October 19, 2011  
(202) 638-6666  
400 Seventh Street, N.W.  
Washington, D.C. 20004  
Atty. Dkt. No.: P71395US0

By   
John C. Holman  
Registration No. 22,769